

NEW DATA ON *EPURAEA ALTERNANS* GROUVELLE
(COLEOPTERA: NITIDULIDAE)¹

W. A. CONNELL

Department of Entomology and Applied Ecology,
University of Delaware, Newark, 19711

ABSTRACT

Epuraea alternans Grouvelle has been collected in the Rocky Mountains from British Columbia to Chihuahua. Its distinctive hair tuft on Sternite I is described in detail, and the male genitalia are figured.

Epuraea alternans Grouvelle was described as *Epuraea alticola* by H. C. Fall (1907). Grouvelle (1912) proposed the replacement trivial name since *alticola* was preoccupied. Fall's description was based on a single male collected by his colleague T. D. A. Cockerell in the Las Vegas Range, New Mexico, at 11,000 feet altitude. No other ecological data are with the specimen or the description. The most distinctive character in the male is a tuft of long setae projecting down from the middle of the 1st sternite.

Recently Vernon Kirk sent me 7 specimens of *E. alternans*, including 2 males, which he collected at Mt. Rushmore, South Dakota, 29-VI-1965, by sweeping. Cockerell's specimen is lighter in color than those from South Dakota, but this may be due to fading. Fall described it as "pale rufotestaceous", while Parsons (1943), in redescribing it 31 years later, called it simply "testaceous". The Mt. Rushmore specimens have the pronotum rufo-testaceous; head and elytra rufo-testaceous to rufous; antennal basal segment testaceous, scape testaceous to rufo-testaceous, club rufo-piceous to piceous; and legs testaceous. The type is about the size of the smallest of those from South Dakota. The latter range from 2.5 to 3.2 mm long by 1.5 to 1.8 mm wide.

Fall (1907) described the hair tuft on the 1st sternite as "two longitudinal parallel lines of erect hairs". They are erect, but in none of the 3 males studied are they parallel. These setae (Fig. 1) have the same pale testaceous color as the recumbent ones on the sternite, but are 3 to 4 times longer as well as more robust. They arise from punctures that appear no different from others on the sternite except for being placed closer together. They are arranged around a bare and sparsely punctate triangular area, about 0.3 mm long and about 0.1 mm wide at the hind margin, which narrows to a point in the direction of the intercoxal piece. The punctures bearing these setae are placed in an irregular pattern in a band on each side of this bare space. The width of this band is about 3 times the diameter of a puncture.

At the anterior, or narrowest, end of the hair tuft the setae are only partially erect and are directed over others behind them in the structure. Moving back from this point the setae gradually become more erect and finally those in the posterior half appear upright for most of their length. The exception is that each bends over sharply near the tip toward the interior of the structure. These setae originate, as has been stated, from two divergent

¹Miscellaneous Paper No. 676, with approval of the Director, Delaware Agricultural Experiment Station. Publication No. 430, Department of Entomology and Applied Ecology.

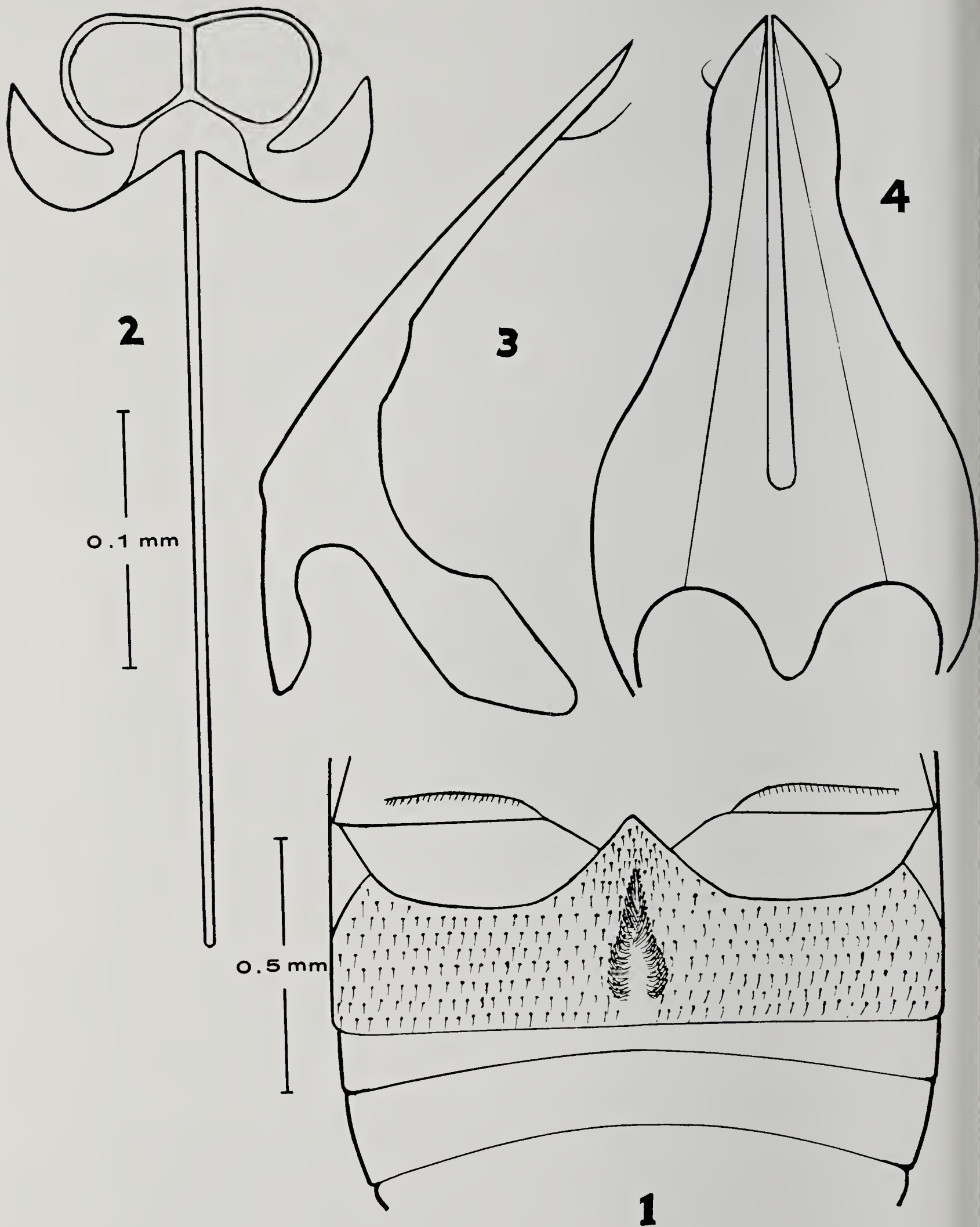


Fig. 1-4: *Epuraea alternans* Grouvelle: 1) sternite I and adjacent structures; 2) sternite VIII; 3) lateral aspect of tegmen, 4) Dorsal aspect of tegmen.

bands of scattered punctures, each band being approximately .04 mm wide, but where they bend sharply, near their distal ends, they have become lined up into an apparently uniform row on each side of the structure.

The function of the hair tuft cannot be deduced without additional information. When the legs are drawn up under the body, either the middle or hind tarsi can be brought in contact with this structure. The hind legs appear to be under a slight strain in this position, but the middle legs do not, and these tarsi fit perfectly the configuration of the hair tuft.

Another interesting feature of this species is the apparent paucity of setae on the male genitalia. This conclusion was reached after dissection of 1 of the Mt. Rushmore males. The 8th sternite was found devoid of setae (Fig. 2), and the tegmen bore a single stout bristle on each arm a short distance behind the tip (Fig. 3).

I express my appreciation to John Lawrence for permission to examine the type in the Fall Collection at the Museum of Comparative Zoology.

ADDENDA

Following preparation of this note, Carl Parsons (personal communication) advised that other specimens of *E. alternans* have been taken. The earliest of these has a 1933 label, but its existence was unknown to him at the time of his revision (Parsons 1943).

He indicated that there were specimens in the following collections: American Museum of Natural History [AMNH], California Academy of Sciences [CAS], Canadian National Collection [CNC], Cornell University [CU], University of Arizona [UA], C. T. Parsons [CTP], G. H. Nelson [GHN], Karl Stephan [KS] and L. R. Gillogly [LRG]. The localities at which they were taken are: BRITISH COLUMBIA, Oliver [CNC]; S. DAKOTA, Black Hills and Pringle [CNC], Custer Peak [CTP]; COLORADO, Science Lodge [CNC]; ARIZONA, Chiricahua Mts. [AMNH, CAS, CNC, LRG], Graham Mts. [UA, LRG], Huachuca Mts. [CAS, GHN], San Francisco Mts. [AMNH], St. Catalina Mts. [UA, KS], Ariz. [CU], Centr. Ariz. [UA], Apache Co. [CNC]; MEXICO State of Chihuahua, San Juanito [AMNH].

One-third of the labels give altitude data. This ranges from 5,400 to 12,600 feet. Most were collected in malt traps, but a St. Catalina Mts. lot was from "sap of spruce" and those labelled Central Arizona were taken by sweeping alfalfa. Collection dates range from 14-IV to 10-IX, with 40% in August.

In addition to these records there is a doubtful specimen, a female, from Northern Michigan in the LeConte Collection [MCZ].

LITERATURE CITED

- FALL, H. C., and T. D. A. COCKERELL. 1907. The Coleoptera of New Mexico. Trans. Amer. Ent. Soc. 33:145-272.
- GROUVELLE, A. 1912. Famille des Nitidulidae. Notes synonymiques at rectifications a la nomenclature. Ann. Ent. Soc. France 81:387-400.
- PARSONS, C. T. 1943. A revision of Nearctic Nitidulidae. Bull. Mus. Comp. Zool. 92:121-278.

